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10/596,058

05/26/2006

Udo Buecher

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EXAMINER

TUROCZY, DAVID P

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

08/28/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@hahnlaw.com
akron-docket@hotmail.com

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/596,058 | Applicant(s) BUECHER ET AL. | |
| | Examiner DAVID TUROCY | Art Unit 1792 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/26/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-9, drawn to a process of forming.

Group II, claim(s) 10-18, drawn to a product.

The inventions listed as Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of a method including the steps of passing a steel strip through a molten bath of metal and forming a coating of metal having spangles on at least one side of the strip, skin pass rolling the strip to suppress and obscure the spangle and brushing the skin pass rolled metal steel strip

This technical feature is not a special technical feature as it does not make a contribution over the prior art in view of Konishi *et al* (EP 0483810 A2). Konishi *et al*. teach a method of producing galvanized steel sheets including the steps of passing the steel through a hot dip metal pot (*considered to be a molten bath where spangles form on at least one surface, figure 1 #6*), skin pass rolling (*considered to suppress and obscure the spangles, figure 1 #10*), and brushing the skin pass rolled metal coated steel strip (*page 5 lines 1-5*). See also page 4 lines 46-55. It is noted that Knoishi

Art Unit: 1792

contemplates the positioning of the skin pass roller in a number of positions downstream from the skin pass roller but prior to the delivery side looper (*page 5 lines 1-5 and figure 1 #13*).

During a telephone conversation with James Schwidker a provisional election was made without traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to

Art Unit: 1792

be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0483810, hereafter EP 810.

EP 810 discloses a method for forming a metal coated steel strip having a brushed finish discloses passing the steel strip through a Zn-Al molten metal bath and forming a galvanized coating, using a skin pass roll after the metal bath treatment and

Art Unit: 1792

thereafter brushing the metal strip (see e.g. page 3, examples). As for the requirement of spangles, the prior art discloses the same galvanization bath as claimed by the applicant and therefore must necessarily have spangles. Additionally, as for the requirement of suppressing or obscuring spangles, the prior art discloses skin roll passing the steel sheet after the molten metal treatment and therefore teaches each and every process step as claimed in claim 1 and therefore must necessarily result in some degree of suppression or obscuring unless the applicant is performing other process steps that are not presently claimed.

Claim 4: EP 810 discloses a metal brush roll (page 3).

Claim 8: EP 810 discloses Zn-Al alloy as discussed above.

4. Claims 1, 4, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6440582 by McDevitt et al, hereafter McDevitt as evidenced by JP 05-261414A.

McDevitt discloses a method for coating a metal steep strip discloses hot dipping a metal strip into galvalume coating, temper rolling (skin pass roll, see JP 05-261414A discloses temper rolling uses skin pass mill rolls) and thereafter brushing the metal strip to form a brushed metal strip (entire reference). See for examples the prior art reference which discloses that it is known to temper the steel strip after a molten metal treatment, specifically, column 2, lines 5-15.

Claim 4: McDevitt discloses brush rolling.

Claim 8-9: McDevitt discloses Galvalume coating (Zn-Al) which produces spangles and it necessarily includes an additive that forms spangles as broadly claimed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 810 in view of JP 40201514, hereafter JP 514.

EP 810 discloses skin pass rolling but fails to disclose the surface roughness, however, JP 514 discloses using a surface roughness for the skin pass roll to provide the desired surface roughness of the steel strip, i.e. the surface roughness of the skin pass roll is known result effective variable and it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the optimum value for the surface roughness of the skin pass roll, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Additionally, JP 514 discloses using a surface roughness in the range as claimed and therefore taking the references collectively, it would have been obvious to use the surface roughness of as taught by JP 514 in the process of EP 810 with a reasonable

Art Unit: 1792

expectation of success because such is taught by JP 514 as known and suitable in the art of galvanization treatment.

7. Claims 1, 4, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6440582 by McDevitt et al, hereafter McDevitt as evidenced by JP 05-261414A.

McDevitt discloses all that is taught above, however, the reference discloses modifying the molten metal bath to minimize the spangles so as to eliminate the need for the temper roller (i.e. the skin pass roll), however, one of ordinary skill in the art at the time of the invention would have predicted successful results in using the skin pass roll after any molten metal bath because McDevitt suggests that the skin pass roll is used to minimize the spangles on the surface of the steel strip after molten metal treatment.

8. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDevitt as evidenced by JP 05-261414A in view of JP 40201514, hereafter JP 514.

McDevitt is applied here for the same reasons as set forth above, however, the reference fails to disclose the surface roughness. JP 514 discloses using a surface roughness for the skin pass roll to provide the desired surface roughness of the steel strip, i.e. the surface roughness of the skin pass roll is known result effective variable and it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the optimum value for the surface roughness of

Art Unit: 1792

the skin pass roll, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Additionally, JP 514 discloses using a surface roughness in the range as claimed and therefore taking the references collectively, it would have been obvious to use the surface roughness of as taught by JP 514 in the process of McDevitt with a reasonable expectation of success because such is taught by JP 514 as known and suitable in the art of galvanization treatment.

9. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6440582 by McDevitt et al, hereafter McDevitt as evidenced by JP 05-261414A alone or in view of WO 84/01909, hereafter WP 909.

McDevitt discloses painting after the brush treatment and it would have been obvious to one of ordinary skill in the art to have selected the appropriate paint to provide the desired coating characteristics because such is well within the skill of one ordinary in the art. Specifically, the claimed paints are known and suitable in the art and the selection of the appropriate paint for the desired results is within the skill of one ordinary skill in the art.

Alternatively, WO 909 discloses known and suitable coatings for steel sheets and therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified McDevitt to deposit the coatings as taught by WO 909 with a reasonable expectation of predictable results.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 05-261414A discloses temper rolling uses skin pass mill rolls.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID TUROCY whose telephone number is (571)272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Turocy/

Application/Control Number: 10/596,058

Page 10

Art Unit: 1792

Examiner, Art Unit 1792